

R E M A R K S

Claims 1 and 3-6 are now in this Application, and are presented for the Examiner's consideration.

Request for One Month Extension of Time

Applicant hereby requests that the period for responding to the Office Action mailed January 23, 2008, set to expire on April 23, 2008, be extended by one (1) month, so as to expire on May 23, 2008. Applicant is a large entity.

Payment is being made with this Amendment.

Objection to Drawings

The drawings were objected to on the ground that the optical fiber standard value controller unit adapted to control standard values, as recited in claim 1, must be shown in the drawings or this feature should be canceled from the claims.

Claim 1 has been amended delete reference to the optical fiber standard value controller unit and in place thereof, recite a diameter measuring device adapted to measure a diameter of an optical fiber drawn from the heating furnace; a cooling apparatus adapted to cool the optical fiber melted in the heating furnace; a coating apparatus adapted to coat the cooled optical fiber with a coating material; and a violet ray hardening apparatus adapted to harden the coated optical fiber.

Support for the diameter measuring device is found at page 8, lines 9-10 and element 13 in Fig. 3; support for the cooling apparatus is found at page 8, lines 10-11 and element 14 in Fig. 3; support for the coating apparatus is found at page 8, lines 12-13 and element 15 in Fig. 3; and support for the violet ray hardening apparatus is found at page 8, line 13 and element 16 in Fig. 3. Thus, no new matter is presented.

Accordingly, it is respectfully submitted that the objection to the drawings has been overcome.

Rejection of Claims under 35 U.S.C. §112

Claims 1, 3-6 and 10 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

First, it was stated that the term "standard values" is indefinite as to meaning and the term is not defined in the specification. Since this term has been deleted from the claims, it is submitted that this rejection is now overcome.

As to claim 1, line 18, it was stated that there is confusing antecedent basis for "the rollers" since this could include the fixing roller itself. Since this language has been deleted from line 18 of claim 1, it is submitted that this rejection is now overcome.

As to the last paragraph in claim 18, it was stated the word "offset" is indefinite. Since this word has been deleted from

claim 1, it is submitted that this rejection is now overcome.

As to claim 3, it was questioned whether the vertical direction is one of the two different offset directions in claim 1. However, since the word "offset" has been deleted from claim 1, it is submitted that the rejection has been overcome. In any event, in order to make this clear, claim 3 has been amended to recite that the vertical direction is one of the at least two different directions, thereby providing antecedent basis back to claim 1.

As to claim 5, it was stated that there is confusing antecedent basis for "said bracket" since it is unclear whether it refers to both brackets. In this regard, claim 5 now refers to at least one of "said at least two brackets", providing clear antecedent basis to claim 1 by using the identical language from claim 1.

As to the transverse direction recited in claim 5, this is recited as being with respect to a drawing plane of the optical fiber. Claim 1 refers to at least two different directions. In Fig. 3, for example, there are two different directions X and Y which are in the drawing plane of the optical fiber. The direction Z is transverse to this drawing plane, and the direction Z could be the transverse direction. It is submitted that one of ordinary skill in the art would readily recognize this from the teachings in the present application.

Claim 10 has been canceled, and any rejections thereof are now rendered moot.

As to the imaginary circle in claim 1, this language has been deleted from claim 1, and it is submitted that this rejection has thereby been overcome.

Accordingly, it is respectfully submitted that the rejection of claims 1, 3-6 and 10 under 35 U.S.C. §112, second paragraph, has been overcome.

Claims 1, 3-6 and 10 were further rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

The basis for this rejection is the language of "at least two different offset directions." However, the language "offset" has been deleted from claim 1, and claim 10 has been canceled. Fig. 4A shows two different directions X and Y which fully supports the language in claim 1. See also page 9, lines 15-18 in which the brackets 10 moved the rollers 18 and 19 in the vertical and horizontal directions.

As to the imaginary circle in claim 1, this language has been deleted from claim 1, and it is submitted that this rejection has thereby been overcome.

Accordingly, it is respectfully submitted that the rejection of claims 1, 3-6 and 10 under 35 U.S.C. §112, first paragraph,

has been overcome.

Prior Art Rejections

Claims 1, 3-6 and 10 were rejected under 35 U.S.C. §103(a) as being obvious from U.S. Patent No. 6,519,404 to Yoshida in view of U.S. Statutory Invention Registration No. H1268 to Askins et al, and further in view of Butterworth-Heinemann (Dictionary of Engineering Terms) and Sklater et al (Mechanisms & Mechanical Devices Source Book 2001), and further in view of newly cited U.S. Patent No. 5,049,178 to Pereman et al.

In Yoshida et al, the only rollers that move in a translation direction, rather than a swinging sense, are rollers 4 and 5 in Fig. 2. Guide rollers 4 and 5, however, only move together between the lower position 4', 5' and the upper position 4, 5 in Fig. 2. There is no disclosure or suggestion that they are independently mounted on different brackets for separate movement, for example, in different directions. In fact, Yoshida et al states at column 6, lines 39-41 that "[t]he movement of the movable guide rollers can be implemented, for example, by use of a guide rail and a chain not illustrated" (emphasis added). In other words, there is a single guide rail for both rollers 4, 5 in Yoshida et al, because both rollers 4, 5 are moved in the same direction, at the same time, and for the same distance. Yoshida et al does not teach separate brackets for independently moving

rollers 4, 5, but rather, teaches using a single guide rail for both rollers 4, 5.

With the present invention, the optical fiber between the fixing roller and the winding apparatus is substantially circular. To achieve this object, the moving rollers 18, 19 must be able to move, respectively:

- a) in different directions while guiding the fiber, and
- b) separate from movement of the other movable roller.

Thus, each roller 18, 19 is separately mounted on a separate bracket 10 which thereby permits movement of rollers 18, 19 in two different directions, for example, the X and Y directions in Fig. 4A (see page 9, lines 15-18 in which the brackets 10 moved the rollers 18 and 19 in the vertical and horizontal directions).

For support for this limitation, see, for example, page 13, lines 4-6 of the present application, which discloses a plurality of brackets 10 which may be provided after the fixing roller in order to reciprocate the moving rollers 18, 19.

As discussed above, Yohsida et al does not disclose or even remotely suggest that the two moving rollers are mounted for separate movement, respectively, in two different directions, in order to reduce the stress on the fiber. This was admitted by the Examiner in the Office Action. See page 6, last paragraph of the Office Action of July 3, 2007.

Further, there would not be any need to do so in Yoshida et al since Yoshida et al is not concerned with providing a circular path of travel for the fiber, but rather, rollers 4, 5 are provided to increase the length of the free zone, and thereby provide a greater length over which the optical fiber can untwist. Thus, there is no suggestion in Yoshida et al, nor any logical reason, to provide separate movement of rollers 4, 5 in two different directions. In fact, separate movement of rollers 4, 5 in different directions may result in more twisting of the fiber, contrary to the teachings of Yoshida et al, such that Yoshida et al would teach away from separate movement of rollers 18, 19.

Thus, each roller 18, 19 of the present invention is mounted to a separate bracket 10. The specification teaches that each roller 18, 19 can move in a translation direction in a slot or vertical direction guide 21 of the respective bracket 10, and also, each bracket 10 can pivot around pivot joint 22. Thus, each roller 18, 19 is movable in two different X- and Y-directions in translation, separately from each other.

This is also distinguished from roller 23 of Yoshida et al, for example, which only rotates about its own axis as shown in Fig. 4 thereof, and does not move in a translation direction.

It must be also pointed out that it is not just the fact that two rollers can be moved independently, but rather, the fact

that two rollers can move on separate brackets, and thereby independently of each other in the context of the present claimed invention of an optical fiber drawing apparatus.

In Askins, L-shaped bracket 62 was noted for mounting two idler rollers 60. However, the idler rollers 60 are both mounted on the same bracket 62. See column 5, lines 58-63. Thus, if bracket 62 is moved, both idler rollers 60 move therewith. Therefore, even if Askins et al is combined with Yoshida et al, the claimed present invention would still not be disclosed or suggested in which there are at least two brackets, each bracket connected to a respective one of said at least two movable rollers to provide movement of the respective one of said at least two movable rollers in at least two different directions relative to the optical fiber, and independent and separate from movement of the other movable roller.

Askins et al was relied upon to show it is not an invention to use a bracket and that it would have been obvious to provide a single bracket for each wheel, with no new, unexpected result for additional adjustability or for mere duplication of parts. The Examiner states that it also would have been obvious to separate the single bracket into two separate brackets, so that a person could separate one from the other, to make replacement of only one wheel more quickly.

However, the case law makes it clear that, for such a modification, there must be some suggestion in the art or some logical reason to do so. The Examiner has failed to indicate anywhere in the art of record where there is a suggestion to so modify the reference. Further, the logical reason to do so must be without regard to impermissible hindsight using applicant's own invention disclosure. The Examiner has failed to indicate why one skilled in the art would want to modify the reference, since there appears to be no logical reason, absent the teachings of the present application.

As discussed above, Askins et al shows a single bracket 62 for mounting two idler rollers 60. Further, as discussed above, in Yoshida et al, guide rollers 4 and 5, only move together between the lower position 4', 5' and the upper position 4, 5 in Fig. 2. Thus, there is no logical reason to provide two brackets, one for each roller, to provide independent adjustment, since neither Yoshida et al nor Askins et al provides for such independent adjustment. Such modification is unwarranted by the references, and constitutes impermissible hindsight.

In this regard, claim 1 recites "at least two brackets, each bracket connected to a respective one of said at least two movable rollers to provide movement of the respective one of said at least two movable rollers in at least two different directions relative to the optical fiber, and independent and separate from

movement of the other movable roller."

This aspect is nowhere disclosed or even remotely suggested by either reference.

Butterworth-Heinemann was merely cited for disclosing a CAM that can be used to impart motion on a mating component. Sclater et al was merely cited for disclosing a roller device with a groove in a bracket. However, neither of these references cure the aforementioned deficiencies of Yoshida et al and Askins et al.

Pereman et al was cited as evidence that it is known in the glass manufacturing art to use two brackets instead of one so as to gain independent operation. The only disclosure in Pereman et al of two brackets is in column 9, lines 19-33. However, the two brackets in Pereman et al are provided merely for mounting two arms 60, 66 for holding the lower and upper glass formation surfaces. This has nothing even remotely to do with the present claimed invention, and is not related at all to two brackets that provide for movement of any rollers individually, each in two different directions, in an optical fiber drawing apparatus. It is submitted that one skilled in the art of optical fiber drawing apparatus, would not look to Pereman et al to modify any of the other references. Further, since neither Yoshida et al or Askins et al disclose separate brackets for independent movement of two rollers in different directions, there is no logical reason to

modify Yoshida et al or Askins et al to provide for the same, and no suggestion in the references to provide for the same. It is therefore submitted that Pereman et al fails to cure any of the deficiencies of the aforementioned references, as discussed above.

Accordingly, it is respectfully submitted that the rejection of claims 1 and 3-6 under 35 U.S.C. §103(a) has been overcome.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

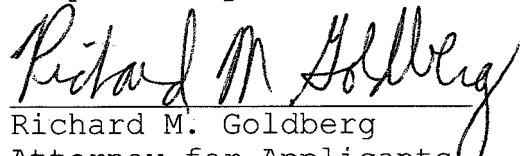
In the event that this Paper is late filed, and the necessary petition for extension of time is not filed concurrently herewith, please consider this as a Petition for the requisite extension of time, and to the extent not tendered by check attached hereto, authorization to charge the extension fee, or any other fee required in connection with this Paper, to Account No. 07-1524.

The Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1524.

In view of the foregoing amendments and remarks, it is

respectfully submitted that Claims 1 and 3-6 are allowable, and
early and favorable consideration thereof is solicited.

Respectfully submitted,


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